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November 17, 2010

Hazardous Waste Management System;
Identification and Listing of Special Wastes;
Disposal of Coal Combustion Residuals from
Electric Utilities Docket
ATTN: EPA Docket Identification No. EPA-HQ-RCRA-2009-0640
U.S. Environmental Protection Agency
EPA Mailcode: 5305T
1200 Pennsylvania Ave., NW
Washington, D.C., 20460

Re: Comments on Proposed Rule on "Hazardous Waste Management System: Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities" (Docket ID No. EPA HQ-RCRA-2009-0640)

On behalf of the South Carolina Department of Health and Environmental Control ("Department"), thank you for the opportunity to provide comments on the proposal by the United States Environmental Protection Agency (EPA) to promulgate *Hazardous Waste Management System: Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities*. The Department believes that its existing regulatory programs adequately address the management and disposal of coal combustion residuals (CCR) and that additional regulation by EPA is unnecessary. However, if EPA moves forward with a final rule, the Department believes that the preferred approach should be regulation under Subtitle D, provided that changes are made to the rule that acknowledge and allow flexibility in states like South Carolina that already have comprehensive solid waste management and water programs in place.

This letter provides a general overview of South Carolina's current regulatory structure for CCRs, and why the Department believes it adequately addresses CCR management without the necessity of federal regulation. A more detailed document containing specific, technical comments on the proposed rule is attached and made a part of this letter. The technical comments address issues under both RCRA Subtitle C and D. While the Department does not support regulation under Subtitle C, technical comments on Subtitle C are included to illustrate some of the concerns and questions that have arisen in reviewing the proposed rule. The Department does not support a divided regulatory approach wherein wet-handled CCRs would be regulated as hazardous or special waste under Subtitle C while dry-handled CCRs would be regulated under Subtitle D.

EPA is seeking comments on the history of state programs, and the adequacy of such programs to ensure the proper management of CCRs. South Carolina currently regulates twelve coal-burning power plants that manage CCRs through the use of landfills, surface impoundments, and beneficial use determination. Each management strategy is discussed in more detail below.

Solid Waste Management of CCR in Landfills

South Carolina has a comprehensive and mature solid waste management program. The Department has regulated solid waste since the early 1970's. In 1991, the South Carolina General Assembly passed a comprehensive solid waste management law, the "Solid Waste Policy and Management Act," that requires, among others, the permitting of solid waste landfills (S.C. Code Ann. §44-96-10 et. seq.). The current landfill regulation is found at Regulation R.61-107.19, and includes requirements for: liners, leachate collection, third party certification requirements for construction and closure and post-closure care, groundwater monitoring, financial assurance, and public participation. These program elements have been in place for more than a decade, and were recently enhanced in 2008 with significant amendments to the solid waste landfill regulations. Based on more than a decade of groundwater monitoring data, none of the State's operating CCR landfills that are in compliance with current regulations have impacted groundwater. In a state that receives more than 40 inches of rainfall each year, this is a testament to the technical soundness of the current regulatory framework.

The Department bases its regulation of CCRs in landfills on a comprehensive analytical evaluation of the waste using TCLP. Current waste characterization studies have shown some changes in the composition of CCRs based on changes in the maximum contaminant level (MCL) for arsenic, and more stringent air pollution control requirements. As a result, the Department is requiring the utilities to undertake more proactive and protective measures for responsible CCR management as some of the CCR contaminants have exceeded the regulatory threshold for existing Class Two landfills. Under R.61-107.19, the Department requires a new characterization of waste material at a minimum of every six years, and more frequently if process changes trigger a need for review. This gives the Department the ability to appropriately adjust CCR management requirements as the composition of the material changes over time.

As a Class Three waste in South Carolina, CCRs are subject to many requirements. CCR disposal requirements include but are not limited to:

- 1000' buffer to residences, hospitals, daycares, and public parks;
- Separation from the seasonal high water table;
- 1.2 – 1.7 structural safety factor for seismic evaluation;
- Liner and leachate collection;
- Maximum 1 foot head on the liner in a 25 year storm event;
- Groundwater monitoring with a point of compliance not more than 150' from the waste disposal unit;
- Assessment and corrective action requirements in the event of a ground water exceedance;

- Inspections include; cell certification prior to waste disposal, monthly; compliance, and final closure certification; and
- Financial responsibility.

South Carolina's public participation and public notice requirements for solid waste permitting decisions are some of the most proactive in the nation. Permitting of new CCR sites and any significant modification to an existing site requires a minimum of three, separate public notices at different points during the process. Opportunities for public input include decisions on issues related to local zoning, county planning, buffer requirements, and local land use ordinances. The Department makes a separate decision regarding these local issues even before a permit application is received. Once completed, the technical review and decision on the permit application is also public noticed, and may be appealed. The Department's public participation and public notice requirements are far more effective in engaging the community than the proposed "citizen suit" provisions in the proposed Subtitle D regulation.

Regulation of CCR Surface Impoundments

Under the SC Pollution Control Act (PCA), the Department has all the necessary regulatory authority to properly regulate surface impoundments for the protection of public health and the environment (S.C. Code Ann. §48-1-10 et. seq.). As to the design of any new facility, regulations promulgated under the PCA (R.61-9 and R.61-67) require that the design include an appropriate liner to protect groundwater and provides the authority to address any structural issues of concern. Groundwater monitoring can be required under these rules as well. The PCA not only regulates discharges to surface waters, but also discharges to groundwater. In addition, existing facilities can be ordered to make corrective actions as necessary to protect public health and the environment. The PCA allows for the Department to issue different types of orders and penalties as warranted. Therefore, any legacy impoundments can be addressed under state authority for the protection of public health and the environment via concerns over any impacts to surface or groundwater.

Beneficial Use of CCR

The Department currently makes a case-by-case determination on beneficial use projects for CCR based upon waste characterization, the proposed project, and other technical information. Specifically, the Department uses the EPA risk-based residential soil screening levels or industrial soil screening levels, depending on the location of the project, as the standard to evaluate the project. The Department also reviews the technical design of the proposed project and hydrogeologic information in making its determination. The Department believes that unencapsulated beneficial use projects for CCRs require far greater scrutiny to ensure protection of the environment and public health.

In South Carolina, electric utilities are recycling CCR under the Bevill Amendment. Gypsum produced at the utilities goes for use in dry wall production. Untreated fly ash and bottom ash are used in the manufacturing of concrete. Although the electric utilities

have not requested a beneficial use determination for these, the Department believes that these encapsulated uses are protective of the environment and public health.

The Department believes that its approach to the recycling of CCR is adequate in making a beneficial use determination that is protective of the environment and public health. We encourage EPA to put in place a requirement in regulation for a recycling/reuse determination by the State prior to any facility selecting a method to reuse its CCR. This can be accomplished by setting up standards similar to those that were put in place in the in the Final Rule on the Definition of Solid Waste (73 FR 211 at 64757, October 30, 2008). Although the Department's current program uses this process, South Carolina does not have a regulation that specifically addresses proposed beneficial use of solid waste. A federal regulation for recycling/reuse determination would assist the State in promulgating a State regulation.

In summary, the Department believes that those states like South Carolina that have existing statutes and regulation in place to regulate CCR should be allowed to continue to do so, and that federal regulation would create unnecessary duplication, confusion, and barriers that would not result in any greater environmental or public health protection. However, if EPA chooses to move forward with a regulation, it should do so under Subtitle D with provisions to allow states to administer their own programs that are equivalent or more stringent than the federal regulation.

Thank you again for the opportunity to comment, and please feel free to contact me at (803) 896-4007 should you wish to discuss this letter or the technical comments that are attached as part of the Department's formal comments on the proposed rule.

Sincerely,

Daphne G. Neel, Chief
Bureau of Land and Waste Management
SC Department of Health and Environmental Control

cc: C. Earl Hunter, Commissioner
Robert W. King, Jr., EQC Deputy Commissioner

Attachment: Technical Comments on the Proposed Rule

Technical Comments from the South Carolina Department of Health and Environmental Control Regarding EPA Proposed Rule "Hazardous and Solid Waste Management System: Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities" Date of Comments: November 17, 2010

Docket ID No.: EPA-HQ-RCRA-2009-0640
Federal Register Dated June 21, 2010

Note on format used in this document: **Bold font is for excerpts from the Federal Register of EPA's preamble and proposed rule.** Normal text is for the Department's responses.

The technical comments included in this document address many details of the proposed regulation as well as information requested by EPA in the June 21, 2010 Federal Register proposal. The Department's general comments on this proposed rule are addressed in the cover letter that has also been submitted. Both the cover letter and the technical comments are submitted together as comments from the South Carolina Department of Health and Environmental Control (Department). The technical comments are organized into the following broad categories for which EPA is seeking comment:

I. Adequacy of State Programs to Manage CCRs
II. Technical Comments on Subtitle D Option
III. Technical Comments on Subtitle C Option
IV. Beneficial Use of CCRs
V. Wet/Dry Handling of CCRs

I. Adequacy of State Programs to Manage CCRs

Preamble: Section XIV: (page 35224)
Detailed information on individual state approaches to ensure the safe management of CCRs under state waste authorities or other authorities.

As discussed in greater detail in the Department's cover letter, South Carolina has a comprehensive regulatory framework for the management of CCRs under the Department's existing authorities. Specifically, the Mining and Solid Waste Management Division of the Department regulates and permits landfills that accept CCRs for disposal. The South Carolina Solid Waste Policy and Management Act requires landfills accepting CCRs to be permitted. Permitting requirements for CCR landfills include, among others, liners, groundwater monitoring, financial assurance, closure and post-closure care, and public participation in permitting decisions. (S.C. Code Ann. §44-96-10 et. seq., R. 61-107.19). Landfill regulations have been in effect since the 1970's; the landfill regulations underwent substantial revisions in 2008. Surface impoundments are regulated by the Bureau of Water under the authority of the South Carolina Pollution Control Act and associated regulations (S.C. Code Ann. §48-1-10, et. seq., R. 61-9 and

R.61-67). The regulations allow the Department to impose design requirements on new facilities that include appropriate liners. The Department may also require the facility to address structural issues. Existing facilities may be subject to corrective actions as necessary.

Preamble: Section XI: (page 35211)
Potential of federal regulation to cause disruption to states' implementation of CCR regulatory under their own authorities.

South Carolina implements and enforces comprehensive solid waste management and water programs that adequately address the management, disposal, and reuse of CCR. Most of the technical requirements addressed by the proposed Subtitle D regulation are already addressed by state regulation and, in some instances, the state's requirements are more stringent than those proposed by EPA. If EPA proceeds with regulating CCR under Subtitle D, the Department strongly recommends that provisions be added whereby EPA has a process that acknowledges states with existing solid waste regulatory programs that are equivalent to the minimum national criteria in the federal regulation, and authorizes those states to implement and enforce the federal regulation.

Preamble: Section X B: (page 35211)
EPA has no authority to implement and enforce the co-proposed RCRA Subtitle D regulation...Subtitle D standards have been drafted so they can be self-implementing without interaction from a regulatory agency...enforceable by states using the citizen suit provisions under RCRA 7002.

Making the proposed Subtitle D regulation self-implementing, and placing the state in the role of a citizen enforcer under citizen suit provisions of RCRA 7002 is an untenable position for those states that already have a robust solid waste management program. By EPA's own statement, under the proposed Subtitle D regulation, "facilities can comply without interaction with a regulatory agency." Yet, these same facilities must already interact with the Department on permit applications, consistency reviews, operating and design requirements, groundwater monitoring, closure and post-closure requirements, and financial assurance. To attempt to parse through the federal requirements and treat them separately from the state's program is unworkable for industry as well as the Department. There will be state requirements that are in conflict with, in addition to, or separate from the federal requirements. The Department cannot be placed in a position whereby it seeks to enforce compliance with its state requirements through the administrative enforcement process while at the same time proceeding to enforce similar or overlapping requirements through the RCRA 7002 citizen suit provision. If EPA proceeds with a regulation under Subtitle D, the Department strongly recommends that it include a process whereby EPA acknowledges those states with existing solid waste regulatory programs that are equivalent to the minimum national criteria in the regulation, and authorizes those states to implement and enforce the federal regulation. Provisions should also be added that clearly state that the federal regulation is not a substitute for existing state regulation of CCR, and that states may be more stringent than the federal requirements. This clarification could be placed in Section 257.50 of the proposed

regulation, thereby strengthening the language concerning the applicability of other regulations.

II. Technical Comments on Subtitle D Option

Beneficial Use:
The proposal for Subtitle C contains beneficial use language in 261.4(b)(4)(i). Why is similar language not included in the Subtitle D proposal? Inclusion of this language in the Subtitle D proposed rule will more effectively promote the beneficial use of CCRs.

Sec. 257.40(b): Definitions: (page 35240)
A definition should be added for "free liquids" to help clarify if and how a landfill or surface impoundment is regulated.

Sec. 257.40(a): Applicability: (page 35240)
The Subtitle D proposal appears to capture CCRs generated from all sources, eg., "requirements of this subpart apply to owners or operators of CCR landfills and CCR surface impoundments," while the Subtitle C proposal captures only CCRs from the electric power sector. What is the rationale for treating the waste differently in the two proposals?

III. Technical Comments on Subtitle C Option

Preamble: Section VIII B: (page 35191)
Authorized states must adopt regulation so that their programs remain at least as stringent as the federal program.
South Carolina is authorized to administer and enforce its own hazardous waste program. If EPA chooses to move forward with the subtitle C approach, the Department concurs that state adoption should be mandatory to maintain consistency.

Sec. 261.50: General: (page 35254)
The following solid wastes are special wastes...S001, Coal Combustion Residuals.
EPA is proposing under Subtitle C to create a new Subpart F – Special Waste Subject to subtitle C Regulation. This approach is used in lieu of making CCR a K Listed waste under 261.32, Hazardous Waste from Specific Sources. CCR falls directly in line with a listed waste from a "specific source." EPA's reasoning for the designation is to help with the stigma of CCR being a hazardous waste. The Department does not agree with this line of reasoning as the material will still be a "hazardous waste" under the Subpart F proposal. Therefore, the Department prefers that CCR be a K listed waste in 261.32 to maintain consistency.

Preamble: Section VI C. 3: (page 35182)
EPA believes that the variance process allowing alternatives to secondary containment would address industry concerns concerning storage requirements for CCRs.

In the Preamble, EPA discusses industry concerns that it cannot meet the storage requirements under RCRA C with existing facilities. EPA's response is that the variance process allowing alternatives to secondary containment would address these concerns. The Department feels that storage requirements will be difficult to address for existing facilities due to many factors such as location standards, determination of when the "waste" is generated given beneficial reuse issues, and the large volumes of waste. The Department does not agree that relying on the variance process would be a good approach to address this issue given the resource burden that process would place on the Department. In addition, the process sets up the potential for varying standards of storage from facility to facility making compliance and enforcement issues more difficult to administer. Therefore, the Department is in favor of EPA developing special storage standards for CCR under RCRA subtitle C, for example 261.4(a)(17).

Preamble: Section VI C. 1: (page 35181)
General Facility Requirements, including Location Restrictions.
Under the proposed regulation, EPA would require CCR facilities to meet location standards in RCRA Subtitle C. The Department is concerned that the majority of existing facilities in the State would not meet location standards under RCRA. This would make the expansion of an existing landfill or the construction of a new landfill impossible. EPA needs to address this issue within the proposed regulation by not requiring **existing** facilities to meet location standards for their landfills. New facilities could be required to meet location standards up front.

Preamble: Section VI D: (page 35183)
Two alternative methods proposed for adjusting the one-pound statutory reportable quantity (RQ) for new waste subject to Subtitle C.
EPA is proposing a one pound RQ for listed CCRs based on the one pound RQs for arsenic and mercury. In addition, EPA is proposing that an alternative method for adjusting the RQ of the CCR wastes can be used in lieu of the one pound RQ. The Department thinks that EPA should develop one RQ method for CCR and that RQ should be 1,294 lbs based on Arsenic.

Preamble: Section IV C: (page 35158)
Availability of existing subtitle C landfill capacity to manage CCRs.
Under a Subtitle C approach, EPA is depending heavily on beneficial use as a mechanism for handling CCRs. However, the majority of the legitimate beneficial use pathways are economically dependent, and any downturn in the economy will create a surplus of CCRs. This would put a strain on the storage and disposal capacity for CCRs regulated under Subtitle C. Given the concerns raised earlier on location standards, offsite disposal options would be necessary for CCRs. EPA needs to understand and acknowledge the difficulty in the timely siting, permitting and actual construction of a new Subtitle C landfill given the numerous opportunities throughout the process for third parties to appeal the issuance of a permit.

Sec. 261.4(b)(4)(i): (page 35254)
Beneficial Use Exclusions.
EPA should add a statement that to be designated as beneficial use the facility must request a recycling determination by the EPA or State that meets the requirements in 260.43.

Preamble: Section IV D: (page 35162)
EPA also wants to make clear that wastes that consist of or contain these Bevill-exempt beneficially used materials, including demolition debris from beneficially used CCRs in wallboard or concrete that were generated because the products have reached the end of their useful lives – would also not be listed as a special waste subject to Subtitle C of RCRA, from the point of their generation to their ultimate disposal.
Another issued raised in comments concerns the disposal of materials that were beneficially used and whether they would become hazardous at disposal. While EPA comments in the Preamble that it would be considered a special waste subject to regulation, the Department feels that EPA should make this position clear in the actual regulation. This could be added to the exclusions listed in 261.4. By doing so, this may also help alleviate the stigma issue.

Preamble: Section VI: (page 35182)
Management and storage of CCRs prior to disposal.
The generation, collection and handling of CCRs prior to placement in a disposal unit involves several management and storage units. For example, baghouses, precipitators, scrubbers, hoppers, containers and conveyance devices are potential management units in CCR facilities. If regulated under RCRA, these units would be considered tanks, containers or miscellaneous units and have to meet design, containment, and operation standards. With materials that are beneficially used not considered a "waste," EPA needs to answer two questions: 1) When is a "waste" generated?; 2) are upstream collection and management units to be regulated under RCRA?

Sec. 261.50(d): (page 35254)
Special Wastes/Beneficial Use
Would any material that was disposed of as structural fill or any other unapproved beneficial use prior to the implementation of Subtitle C regulations for CCR be considered a hazardous waste if excavated?

Regulatory Impact Analysis, State Government Costs: (page 63)
EPA estimates that it would cost States on average $58,200 per Subtitle C waste disposal permit. The Department feels that this number is significantly underestimated. Given the complexity of permitting an existing facility, the Department feels that it will take at least 2.0 FTEs to permit a CCR facility. In addition, a complicating factor will be that given the multiple CCR facilities in the State, the Department will be receiving multiple Part B permit applications at about the same time. This will require the hiring and training of additional staff. In addition, EPA should realize that some States, including South Carolina, do not have a fee structure in place that covers permit applications of this magnitude and these States depend heavily on EPA grants that have remained stagnant or

decreased in recent years. Given these factors, the Department feels EPA should at least triple the estimated costs per permit. This cost estimate does not include long-term costs associated with a permitted TSD such as corrective action activities, permit modifications, routine monitoring requirements, and compliance inspections.

Section 268.2(f): (page 35262)
Definition of Wastewaters.
EPA proposes to change the definition of wastewaters in 268.2(f) to add an exception for S001, which will be a wastewater if the moisture content exceeds 50%. Please explain the basis for this decision and potential impacts related to compliance with RCRA for CCRs. Would CCRs that contain 50% or less moisture then be allowed for disposal in an onsite landfill assuming it meets LDRs?

Preamble: Section XIV: (page 35222)
Whether EPA should fully develop a leaching assessment tool in combination with the Draft SW-846 leaching test methods.
EPA requests comments on whether EPA should develop a leaching assessment tool in combination with the Draft SW-846 leaching test methods. The Department encourages EPA to be very specific on the allowable or standard leaching methods to determine acceptable uses for CCRs.

Preamble: Section XIV: (page 35224)
Financial Assurance.
The Department requests that EPA clarify the interaction of financial assurance requirements under Subtitle C and potential impacts to requirements under CERCLA 108(b). Do CERCLA 108(b) requirements supersede RCRA Subtitle C requirements? Will States implement CERCLA 108(b) financial assurance requirements?

IV. Beneficial use of CCRs

Preamble: Section IV C and D: (pages 35156-35165)
EPA asks for comments on beneficial use of CCRs. South Carolina's current approach to beneficial use of CCRs is detailed in the attached cover letter. From a technical standpoint, the legitimacy of any reuse of CCRs is of major concern to ensure that the material is not used in a manner constituting disposal. The Department feels that EPA should put in place a requirement in regulation for a recycling/reuse determination by the State prior to any facility selecting a method to reuse their CCRs. This can be accomplished by setting up standards similar to those that were put in place in the Revisions to the Definition of Solid Waste, where EPA codified in 260.43, Legitimate Recycling of Hazardous Secondary Materials. This approach is similar to the Lowrance Memo used for making recycling determinations. Further, the Department feels that this approach should be a requirement for either regulation under Subtitle C or Subtitle D. In addition, industry has expressed concerns to the Department that a generator of CCRs would assume CERCLA and civil liability for their CCRs that are reused, even if the use was determined to be legitimate. This is a valid concern that may significantly impact the

beneficial use of CCR. EPA should consider this issue in light of potential CERCLA liability for beneficial use under Subtitle C.

V. Wet/Dry Handling CCRs

Preamble: Section XIII: (page 35220)
EPA discusses in the Preamble consideration of a regulatory approach that would treat wet-handled CCR as hazardous or special waste under Subtitle C, and dry-handled CCR as solid waste under Subtitle D. The Department does not support a split approach to the regulation of CCR. First, it creates an artificial regulatory distinction based on the disposal method rather than on the nature and characteristics of the material that is being disposed. It seems disingenuous to call the same material hazardous if disposed of in a surface impoundment but non-hazardous if it is disposed of in a landfill. Second, the regulatory requirements under Subtitle C and D are very different for, among others, corrective action, financial assurance, compliance monitoring, and closure/post-closure. Subjecting a facility that may handle its CCR through the use of both landfills and surface impoundments compounds the regulatory burden of attempting to manage the waste up to the actual disposal of it under vastly different management requirements. The potential for overlap, confusion, and conflict in the management of CCR as both Subtitle C and D waste overrides any alleged benefit such regulation may have. In fact, EPA's principal justification for considering such an approach appears to be EPA's ability to then "provide[s] a high degree of federal oversight, including permit requirements and federally enforceable requirements, for surface impoundments and similar units that manage wet CCRs." EPA clearly believes that surface impoundments present a higher degree of risk and pose a more likely risk of catastrophic failure. If that is the case, then devise a regulatory approach that specifically focuses on the structural and environmental integrity of surface impoundments rather than wreaking havoc by force fitting an approach under either Subtitles C or D, or both.